CCS Technical Documentation
RH-10 Series Transceivers

Disassembly / Assembly

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Disassembly/Assembly Instructions

Order of photographs are for Disassembly.

To Assemble, simply reverse the order shown.

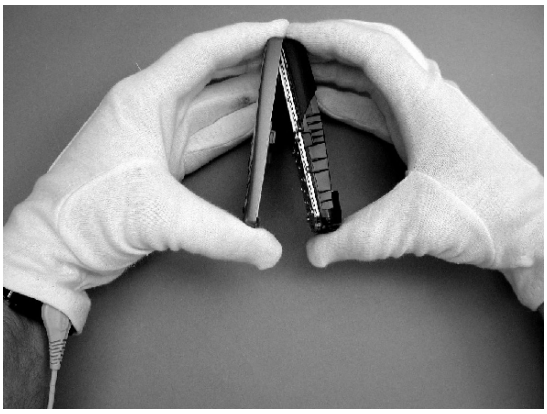
Note: Finger cots or gloves should be worn when phone is disassembled.

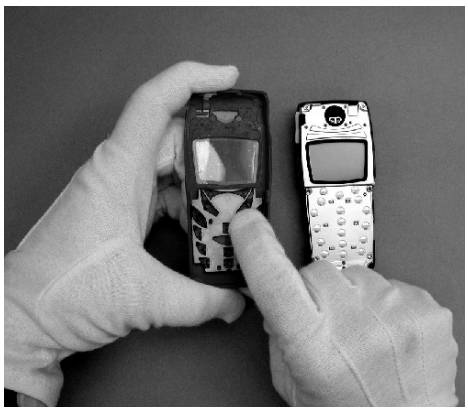
Note: ESD precautions should be strictly observed when handling unassembled phones.

A-Cover

(Disassemble) After removing the battery cover, grasp the bottom of the A-cover and the bottom of the transceiver. Pull apart (photo below, left). The A-cover is hinged at the top; do not force apart. The hinge releases when the bottom is fully separated from the transceiver.

(Assemble) Ensure that the keypad is properly seated in the A-cover, pressing at each of the four guide pins with a fingertip (photo below, right). While holding the A-cover approximately 30 degrees to the transceiver, engage the top hinge. Now push the bottom of the A-cover towards the transceiver until it seats fully.

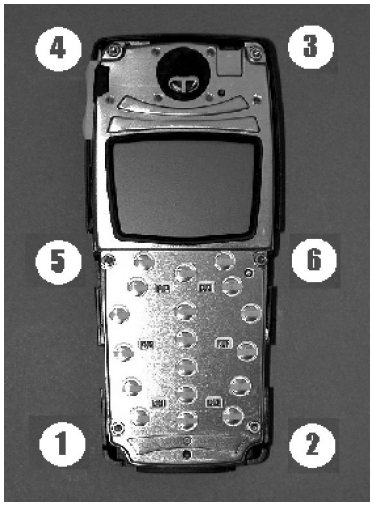


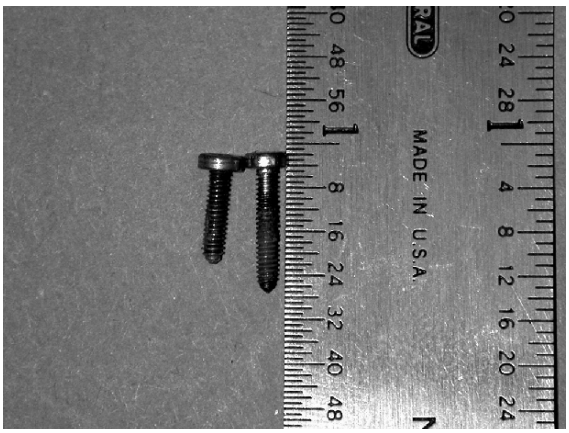


Screws x 6 (4 x *long* top/bottom) (2 x *short* middle)

(Disassemble) Using a size T6 driver, remove all six screws.

(Assemble) Replace the screws in the order shown in the photo below left. Be sure to apply pressure to the board with the other hand to ensure a flat fit for all spring contacts. The photo at right shows the different lengths of screws.



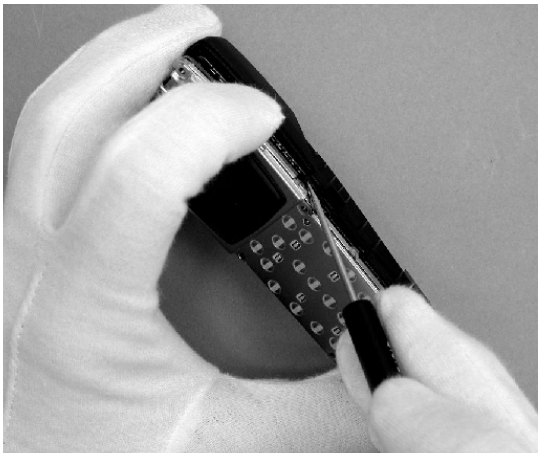


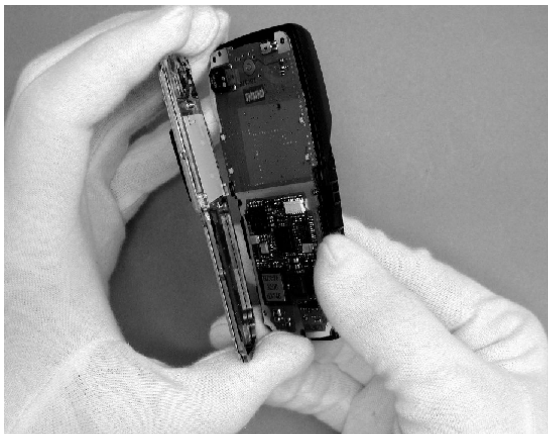
NOTE: Screw torque should be set at 16 Ncm +/-2 Ncm. This can only be achieved with a properly calibrated torque driver. All torque drivers should have routine inspections for correct calibration and proper performance.

UI Snap Fit

(Disassemble) Using a small, flat screwdriver or a pair of fine tweezers, gently disengage one of the two snaps that hold the UI board to the B-cover (located on either side of the phone, level with the bottom edge of the LCD). (Photo below, left, illustrates this.) The second snap should disengage easily as the UI module is removed from the radio module (photo below, right). Care should be taken to not damage the snaps.

(Assemble) Make sure the UI module is properly aligned with the radio module. Apply an even, downward pressure to both snaps at once.





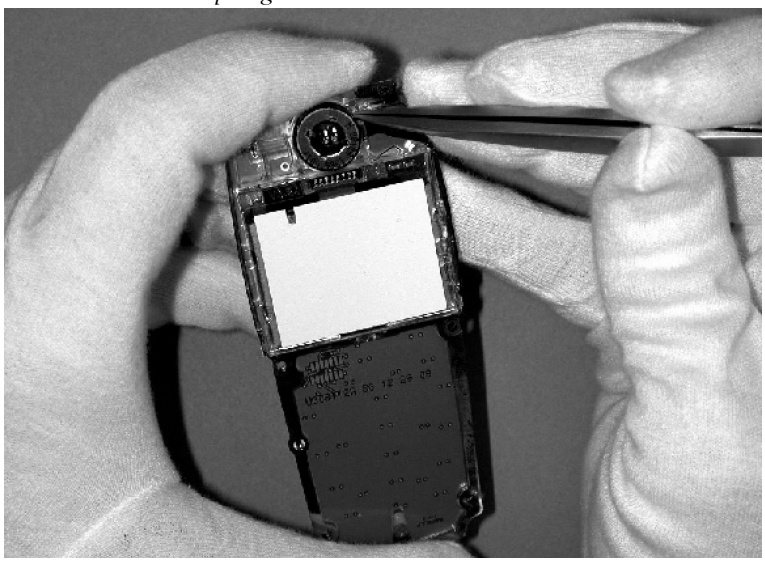
Speaker

(Disassemble) The speaker may now be removed, if needed, by carefully lifting at the open cavities for the speaker snap fits. A pair of offset tweezers may be used to grasp both sides of the speaker (see photo, below); then simply lift the speaker straight up.

NOTE: DO NOT pierce with sharp object, or touch the spring contacts of the speaker or display.

(Assemble) It is recommended that offset tweezers be used to insert the speaker, avoiding contact with hands. It is important to keep the contacts safe.

NOTE: DO NOT touch the spring contacts.



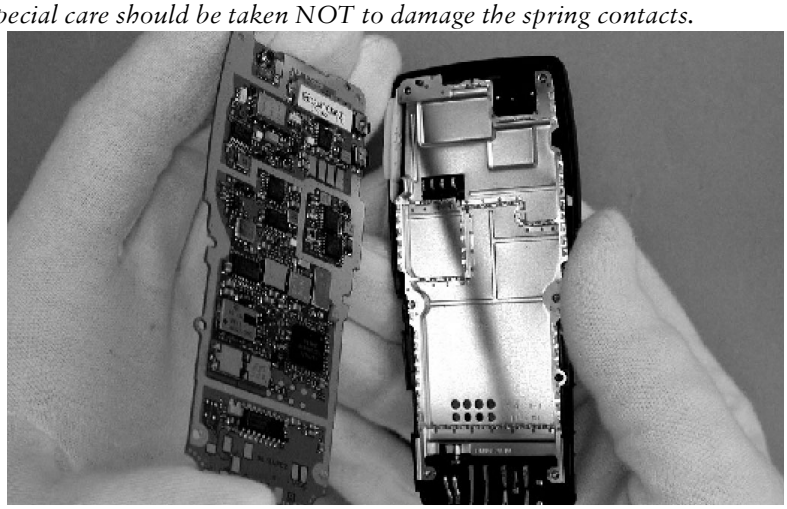
Radio Module

(Disassemble) The radio module now is free to be removed.

NOTE: Be careful NOT to damage the springs of the battery contact or system connector while removing the radio module.

(Assemble) Carefully install the radio module, using the guide pins on the B-cover for position.

NOTE: Special care should be taken NOT to damage the spring contacts.

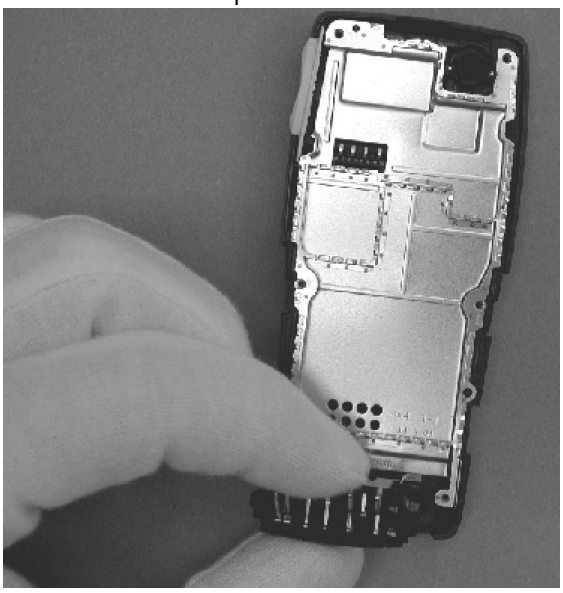


System Connector

(Disassemble) Once the radio module has been removed, the system connector is free to be removed from the B-cover.

NOTE: Take care NOT to touch the springs during assembly or disassembly. Also, do not lay aside with contacts down.

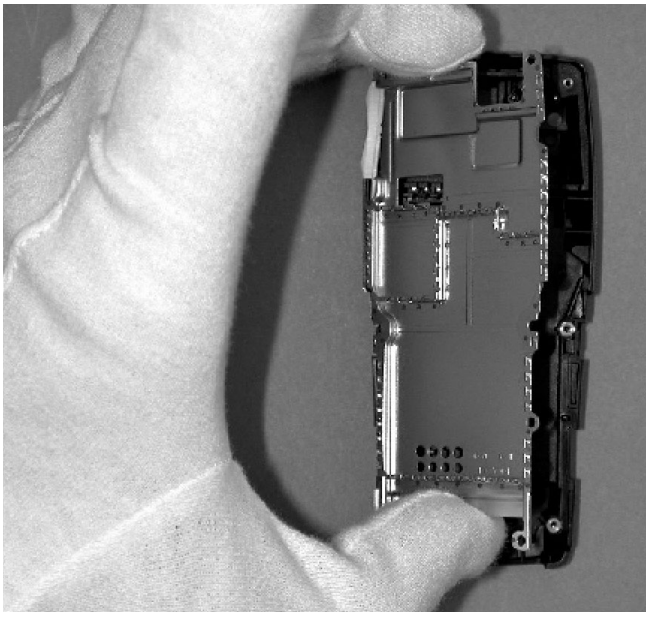
(Assemble) See the NOTE above for precautions



RF Shield

(Disassemble) The RF shield is free to be removed by grasping at top and bottom (see photo below), carefully lifting over the battery contact springs. Do not use the center of shield for removal, as damage to shield springs or battery contact springs may occur.

(Assemble) Great care should be taken to avoid contact with the battery contact springs and to avoid damage.

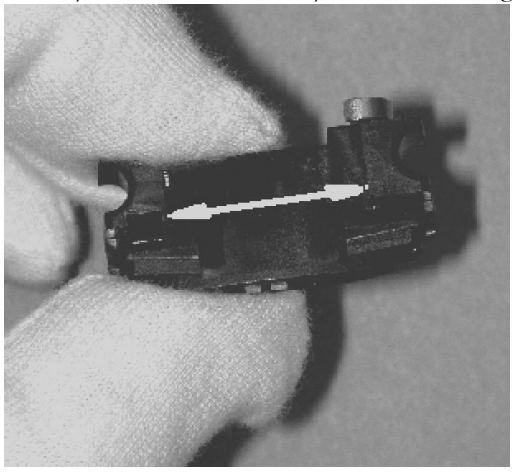


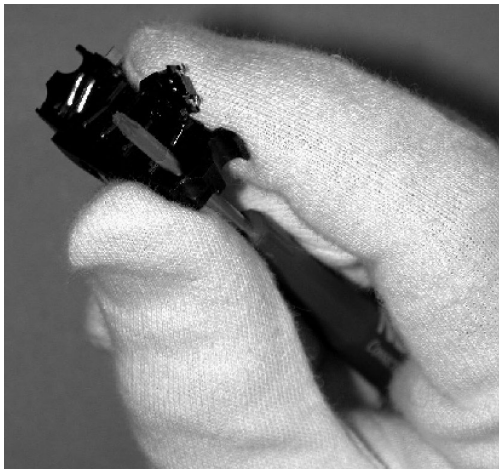
Vibra Motor and Microphone

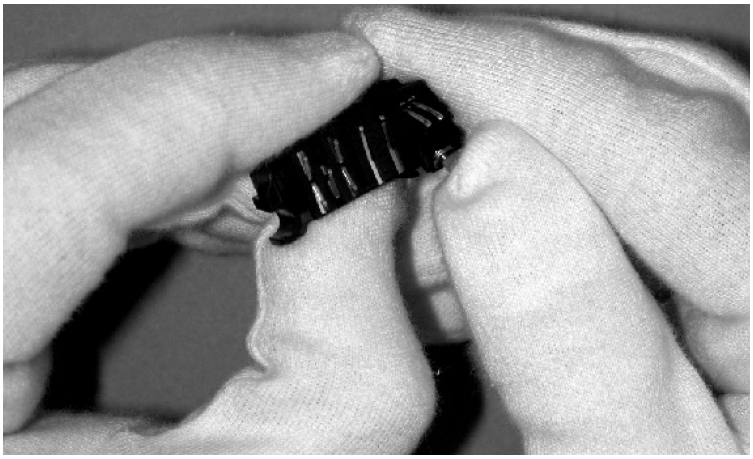
(Disassemble) Note two through-holes located in the bottom of the connector (photo, below left). A small, blunt object may be inserted to help dislodge the microphone or vibra motor. The motor may also be removed by gently lifting the vibra shaft. Do not force the motor out; damage will occur. If the assemblies are to be reused, be careful not to touch any spring contacts.

(Assemble) Use tweezers to reinsert (photo, below right), using the tip to fully seat.

NOTE: DO NOT use fingertips to seat! Overstress by pushing on spring contacts can lead to intermittent failures in time, even if the initial testing is okay.



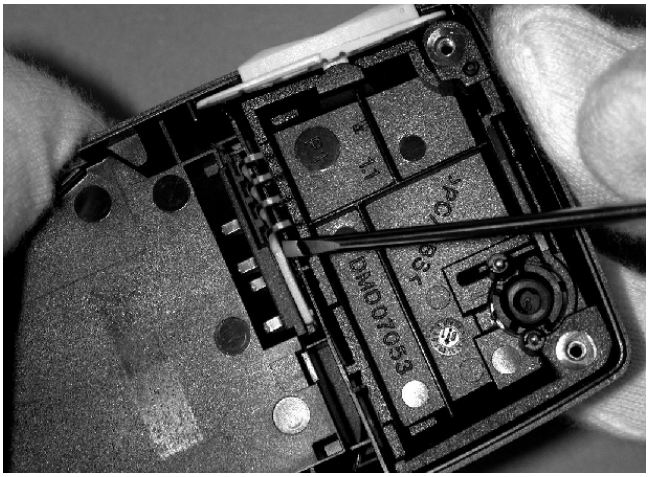




Battery Connector (*also see* **Battery Connector Handling**, *which follows***)**

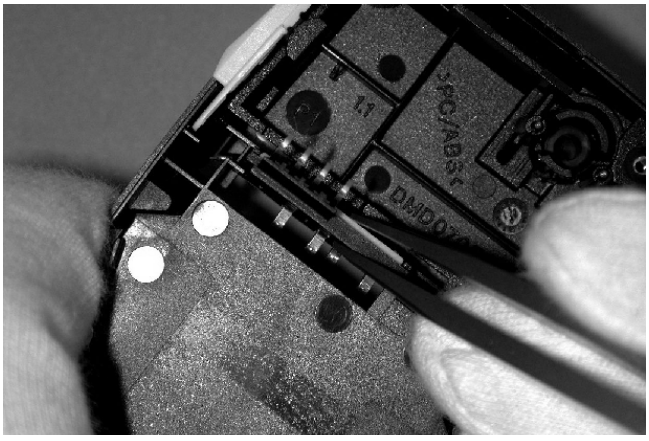
(Disassemble) Insert the tip of a very thin, flat-tip screwdriver (or similar instrument) between the battery connector and the B-cover wall (at approximately the center of the battery connector). Gently rock the handle of the screwdriver (see photo below) downward to disengage the two locking clips and to lift the battery connector upward.

(Assemble) Carefully place the connector in the B-cover. Then use a small screwdriver or tweezer tip to push the center of the connector in order to fully seat. You should hear/feel the locking mechanism engage.



Battery Connector Handling

The springs that make contact with the PWB can be easily bent while exposed or while outside of an assembled phone. Take care NOT to touch these contacts at any time if the connector is to be reused. Tweezers should be used to remove new connectors from tray.

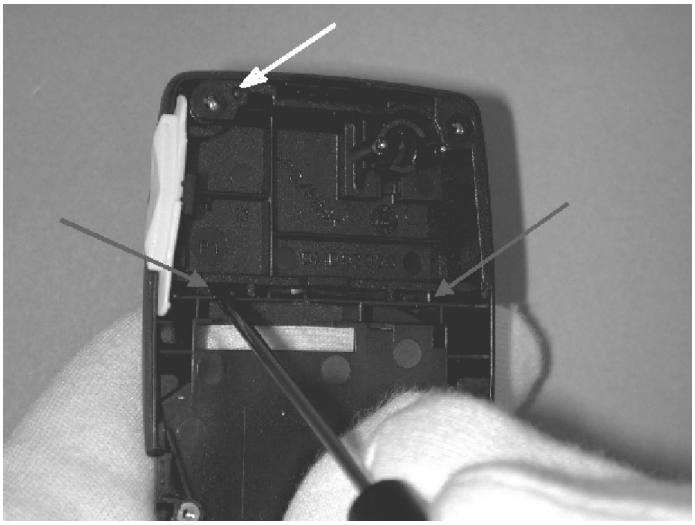


Antenna

(Disassemble) Insert a small screwdriver between the antenna and the B-cover next to one of the two retaining snaps (indicated by blue - *bottom two* - arrows in the following photo). Using the tool as a lever, gently disengage each of the two snaps. Care should be taken NOT to damage the guide pin, positioned through the top portion of the antenna (indicated by white - *top* - arrow in the following photo).

(Assemble) Position the antenna onto the B-cover guide pin (white - *top* - arrow in photo below). Press straight down in the middle of the antenna until you feel/hear the snaps engage, indicating that the assemblies are fully seated.

NOTE: Initial alignment and straight insertion is critical to keep from damaging the guide pin.



Volume Key

(Disassemble) With antenna removed, volume key is free and may be lifted off.

(Assemble) Insert key fully onto the guide pin.